

### **REMARKS**

Claims 1-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (U.S. Patent No. 6,046,874) in view of Honma (U.S. Patent No. 6,111,835). In response, Applicants amended independent claims 1 and 9 to recite further features of the present invention, and respectfully traverse. Applicants traverse because Takahashi and Honma fail to disclose or suggest using a plurality of Viterbi detectors entirely for each of a single-mode configuration and a dual-mode configuration, and in particular, transmitting a plurality of expected values to the plurality of detectors during operation of the dual-mode configuration.

Takahashi is directed to a reproduction apparatus that uses multiple partial response maximum likelihood detection systems. Takahashi selectively uses a part of a plurality of Viterbi detectors (e.g. elements 30 and 36, and elements 32 and 36). However, Takahashi fails to disclose or suggest the features of the present invention, which include transmitting a plurality of sequences of samples to the plurality of detectors, transmitting a plurality of expected values to the plurality of detectors, connecting the plurality of detectors together to cause the Viterbi detection unit to provide a second partial response signal with a second constraint length different from the first constraint length, and controlling the connection and disconnection of the plurality of detectors in response to a constraint length of the recorded data, as now recited in amended claims 1 and 9.

Honma is directed to a PRML decoder for processing different channel codes with reduced hardware. Honma also is directed to selectively using a part of a plurality of

Viterbi detectors, but fails to overcome the deficiencies noted above with respect to Takahashi.

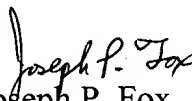
In contrast, the present invention advantageously has, when the plurality of detectors are connected together, a Viterbi detection unit serving to provide a second partial response signal with a second constraint length, which corresponds to the single-mode configuration. When the plurality of detectors are disconnected, each of the detectors in the Viterbi detection unit provides a first partial response signal with a first constraint length, which corresponds to the dual-mode configuration. Since neither Takahashi nor Honma disclose or suggest transmitting the sequences of samples to the detectors and transmitting the expected values to the detectors during operation of the dual-mode configuration, or the other features noted above, withdrawal of the §103 rejection is respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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